



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/17)**

Montreal, 24 to 28 April 2017

Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284)* for incorporation in the 2019-2020 Edition

2.3: Part 3 — Dangerous Goods List, Special Provisions and Limited and Excepted Quantities

**ASSIGNMENT OF SPECIAL PROVISION A67 AGAINST ENTRIES FOR ENGINES,
MACHINERY AND VEHICLES**

(Presented by D. Brennan)

SUMMARY

This working paper proposes that Special provision A67 be removed from the entries for UN 3166, UN 3171, UN 3528, UN 3529 and UN 3530 to align to the UN Model Regulations.

Action by the DGP-WG: The DGP-WG is invited to revise Table 3-1 as shown in the appendix to this working paper.

1. INTRODUCTION

1.1 Changes arising from the 19th revised edition of the UN Model Regulations related to engines and vehicles resulted in significant amendments and additions to entries in Table 3-1 in the 2017-2018 Edition of the Technical Instructions for engines, machinery and vehicles and also the special provisions that are assigned against those entries.

1.2 As the provisions in the 2017-2018 Edition have come into use there have been questions around the assignment of Special Provision A67 against the entries for engines and machinery (UN 3528, UN 3529 and UN 3530) and for vehicles (UN 3166 and UN 3171), including battery-powered equipment in UN 3171.

1.3 For the UN Model Regulations, the equivalent of Special Provision A67, Special Provision 238 is only assigned against UN 2800 — **Batteries, wet, non-spillable**. UN Special Provision 238 includes all of the text shown in Special Provision A67 as well as text that describes the

vibration test and the pressure differential test, which in the Technical Instructions is included in Packing Instruction 872.

1.4 In considering the assignment of Special Provision A67 the need to also assign it to the entries for engines, machinery and vehicles is questioned.

1.5 The potential implication of assigning Special Provision A67 is that somehow a non-spillable battery in the engine, machinery or vehicle makes the article as “not regulated”. However, given that the engine and machinery will contain fuel and vehicles will also likely have air bags and possibly other dangerous goods then whether or not the battery meets Special Provision A67 is irrelevant.

1.6 It is therefore proposed to remove reference to Special Provision A67 from UN 3166, UN 3171 — **Battery-powered vehicle** only, UN 3528, UN 3529 and UN 3530 to align to the provisions of the UN Model Regulations. For UN 3171 — **Battery-powered equipment**, Special Provision A67 should be retained. For UN 3171, battery-powered equipment, the DGP-WG is invited to request that the Secretary raise with the UN Subcommittee a proposal that Special Provision 238 be added to UN 3171 — **Battery-powered equipment** only in the Dangerous Goods List in the Model Regulations.

1.7 In addition, while developing this working paper inconsistencies were identified with assignment of Special Provision A176 to the new entries for engines and machinery that have the qualifying text “fuel cell”.

1.8 Special Provision A176 specifies requirements for metal hydride storage systems and as such should be assigned to the entries that have “fuel cell” as part of the proper shipping name. Currently the entries in Table 3-1 only have Special Provision A176 assigned to UN 3528 — **Engine, fuel cell, flammable liquid powered** and UN 3528 — **Machinery, fuel cell, flammable liquid powered**, not to the equivalent entries for UN 3529.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to revise Table 3-1 as shown in the appendix to this working paper.

APPENDIX

PROPOSED AMENDMENT TO PART 3 OF THE TECHNICAL INSTRUCTIONS

...

Part 3

DANGEROUS GOODS LIST,
SPECIAL PROVISIONS AND
LIMITED AND EXCEPTED QUANTITIES

...

Chapter 2

ARRANGEMENT OF THE
DANGEROUS GOODS LIST (TABLE 3-1)

...

2.1 ARRANGEMENT OF THE DANGEROUS GOODS LIST
(TABLE 3-1)

...

Table 3-1. Dangerous Goods List

Name 1	UN No. 2	Class or division 3	Subsidiary Risk 4	Labels 5	State variations 6	Special provisions 7	UN packing group 8	Excepted quantity 9	Passenger aircraft		Cargo aircraft	
									Packing instruction 10	Max. net quantity per package 11	Packing instruction 12	Max. net quantity per package 13
...												
Battery-powered vehicle	3171	9		Miscellaneous		A21 A67 A87 A94 A164 A182		E0	952	No limit	952	No limit
...												
Engine, fuel cell, flammable gas powered†	3529	2.1		Gas flammable		A67 A70 A87 A176 A208		E0	FORBIDDEN		220	No limit
Engine, fuel cell, flammable liquid powered †	3528	3		Liquid flammable		A67 A70 A87 A176 A208		E0	378	No limit	378	No limit

Name 1	UN No. 2	Class or division 3	Subsidiary Risk 4	Labels 5	State variations 6	Special provisions 7	UN packing group 8	Excepted quantity 9	Passenger aircraft		Cargo aircraft	
									Packing instruction 10	Max. net quantity per package 11	Packing instruction 12	Max. net quantity per package 13
Engine, internal combustion, flammable gas powered	3529	2.1		Gas flammable		A67 A70 A87 A208		E0	FORBIDDEN		220	No limit
Engine, internal combustion, flammable liquid powered	3528	3		Liquid flammable		A67 A70 A87 A208		E0	378	No limit	378	No limit
...												
Machinery, fuel cell, flammable gas powered	3529	2.1		Gas flammable		A67 A70 A87 A176 A208		E0	FORBIDDEN		220	No limit
Machinery, fuel cell, flammable liquid powered	3528	3		Liquid flammable		A67 A70 A87 A176 A208		E0	378	No limit	378	No limit
Machinery, internal combustion, flammable gas powered	3529	2.1		Gas flammable		A67 A70 A87 A208		E0	FORBIDDEN		220	No limit
Machinery, internal combustion, flammable liquid powered	3528	3		Liquid flammable		A67 A70 A87 A208		E0	378	No limit	378	No limit
...												
Vehicle, flammable gas powered	3166	9		Miscellaneous		A67 A70 A87 A118 A120 A134 A203 A207		E0	FORBIDDEN		951	No limit
Vehicle, flammable liquid powered	3166	9		Miscellaneous		A67 A70 A87 A118 A120 A134 A203 A207		E0	950	No limit	950	No limit

Name 1	UN No. 2	Class or division 3	Subsidiary Risk 4	Labels 5	State variations 6	Special provisions 7	UN packing group 8	Excepted quantity 9	Passenger aircraft		Cargo aircraft	
									Packing instruction 10	Max. net quantity per package 11	Packing instruction 12	Max. net quantity per package 13
Vehicle, fuel cell, flammable gas powered†	3166	9		Miscellaneous		A67 A70 A87 A118 A120 A134 A176 A203 A207		E0	FORBIDDEN		951	No limit
Vehicle, fuel cell, flammable liquid powered †	3166	9		Miscellaneous		A67 A70 A87 A118 A120 A134 A176 A203 A207		E0	950	No limit	950	No limit
...												

...

— END —